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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/781,607

Filing Date: February 18, 2004

Appellant(s): CASTELLANOS, MARIA GUADALUPE

Dan C. Hu
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 03, 2009 appealing from the Office action mailed March 03, 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

| | | |
|-----------------|---------------|---------|
| US 2002/0165726 | Grundfest | 11-2002 |
| US 2002/0184401 | Kadel et al. | 12-2002 |
| 6,859,909 | Lerner et al. | 02-2005 |

Sonderland, Stephen "Learning Information Extraction Rules for Semi-Structured and Free Text" Kluwer Academic Publishers, 1999, pp. 233-272

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 9-13, 15, 16, 19-21, 23, 30, 33, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soderland (1999) in view of Grundfest (US 2002/0165726).

As per Claims 1 and 19, Soderland discloses a method executed by a processor, comprising:

receiving, by the processor, a definition of plural structural components within a document being analyzed (Page 238, discloses defining (via identifying) the context of relevant phrases (i.e. components) and the exact delimiters (i.e. structural) of the phrases (i.e. components));

determining, by the processor, at least one language pattern indicative of a document attribute from text of a plurality of sample document, wherein the at least one language pattern corresponds to a particular one of the plural structural components specified by the definition (Page 238, via WHISK rules that are based on a form of regular expression patterns that identify the context of relevant phrases and the exact delimiters of those phrases);

determining, by the processor, whether the language pattern is present in the particular structural component of the contract being analyzed (Pages 238-239, discloses determining whether a language pattern is present in a document);

in response to the presence of the language pattern in the particular structural component of the document being analyzed, assigning, by the processor, text associated with the language pattern to the contract attribute (Page 239, via if the entire pattern matches, a case frame is created with slots filled as labeled in the output portion of the rule).

However, Soderland fails to explicitly disclose the method being applied to contracts.

Grundfest discloses a system and method for facilitating creation and management of contractual relationships and corresponding contracts with the concept of analyzing contracts for language patterns ([0010] discloses searching through contracts for trends or patterns in the contract data).

Therefore, from the teaching of Grundfest, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information extraction system of Soderland to include the method being applied to contracts as taught by Grundfest in order to aid in recognizing contractual patterns such as price and quantity in contract that may identify marketing and sales opportunities in contracts for goods and services.

As per Claims 2 and 20, Soderland discloses the claimed invention as applied to Claims 1 and 19, above. However, Soderland fails to explicitly disclose identifying, from the plurality of sample contracts, annotations that describe a structural context associated with the language pattern.

Grundfest discloses a system and method for facilitating creation and management of contractual relationships and corresponding contracts with the concept of identifying, from the plurality of sample contracts, annotations that describe a structural context associated with the language pattern, wherein the structural context corresponds to the particular structural component ([0036] discloses using XML (extensible markup language) tagging (i.e. annotations) to extract relevant data from the full text of contracts entered into the database).

Therefore, from the teaching of Grundfest, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information extract system of Soderland to include identifying, from the plurality of contracts, annotations that describe a structural context associated with the language pattern as taught by Grundfest in order to aid in recognizing contractual patterns such as price and quantity in contracts that may identify marketing and sale opportunities in contracts for goods and services.

As per Claims 3 and 21, Soderland discloses the claimed invention as applied to Claims 2 and 20, above. However, Soderland fails to explicitly disclose manually adding the annotations to the plurality of contracts.

Grundfest discloses a system and method for facilitating creation and management of contractual relationships and corresponding contracts with the concept of manually adding the annotations to the plurality of sample contracts based on the plural structural components specified by the definition ([0036] discloses using XML (extensible markup language) tagging (i.e. annotations) to extract relevant data from the full text of contracts entered into the database).

Therefore, from the teaching of Grundfest, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information extract system of Soderland to include manually adding the annotations to the plurality of contracts as taught by Grundfest in order to aid in recognizing contractual patterns such as price and quantity in contracts that may identify marketing and sales opportunities in contracts for goods or services.

As per Claim 4, Soderland discloses the claimed invention as applied to Claims 2 and 20, above. However, Soderland fails to explicitly disclose extensible markup language tags.

Grundfest discloses a system and method for facilitating creation and management of contractual relationships and corresponding contract with the concept of extensible markup language tags ([0036] discloses using XML (extensible markup language) tagging (i.e. annotations) to extract relevant data from the full text of contracts entered into the database).

Therefore, from the teaching of Grundfest, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information extract system of Soderland to include extensible markup language tags as taught by Grundfest in order to aid in recognizing contractual patterns such as price and quantity on contracts that may identify marketing and sale opportunities in contracts for goods or services.

As per Claim 5, Soderland discloses the contract attribute being specified in a component object model associated with the contract (Pages 234-235, discloses using domain objects such as person names, company names, positions (i.e. attributes) that are associated with the document).

As per Claims 6 and 23, Soderland discloses generating a rule having an identifier of the particular structural component and a regular expression associated with the language pattern (Page 238, via WHISK rules being based on a form of regular

expression language patterns that identify the context of relevant phrases (i.e. components) and the exact delimiters of those phrases (i.e. structural components)).

As per Claim 7, Soderland discloses the regular expression being formed using a top-down induction method (Page 244, discloses using top-down rule induction method wherein it begins with an “empty” rule that covers all instances, then adds terms to the rule, which reduces the number of instances covered monotonically).

As per Claim 9, Soderland discloses classifying a portion of the contract being analyzed containing the language pattern into a subject category associated with the particular structural component of the rule (Pages 239-240, discloses classifying a portion of an ad containing the language pattern for bedrooms and neighborhood into a subject category associated with the structural context component of the rule (i.e. Bdrm or Nghbr)).

As per Claim 10, Soderland discloses classifying into the subject category based on at least one language pattern in the portion indicative of the subject category (Pages 239-240, discloses classifying a portion of an ad containing the language pattern for bedrooms and neighborhood into a subject category associated with the structural context component of the rule (i.e. Bdrm or Nghbr)).

As per Claim 11, Soderland discloses a processor and a learning module configured to determine at least one language pattern indicative of a contract attribute from text of the plurality of contracts (Page 261, discloses a learning system (i.e. WHISK). Page 238, discloses WHISK rules that are based on a form of regular

expression patterns that identify the context of relevant phrases (i.e. contract attributes) and the exact delimiters of those phrases); and

an extractor executable on the processor to determine whether the language pattern is present in the particular structural component of the contract being analyzed, the extractor further executable to, in response to the presence of the language pattern in the particular structural component of the contract being analyzed, assign a contract attribute to a portion of the text of the contract being analyzed associated with the language pattern (Page 233, discloses an information extraction system comprising of a set of text extraction rules that identify relevant information to be extracted based on patterns. Page 239, discloses if the entire pattern matches, a case frame is created with slots filled as labeled in the output portion of the rule).

Soderland also discloses definitions that specifies plural structural components of a document being analyzed (Page 238, discloses defining (via identifying) the context of relevant phrases (i.e. components) and the exact delimiters (i.e. structural) of the phrases (i.e. components)). However, Soderland fails to explicitly disclose a storage arrangement and a contract facts database.

Grundfest discloses a system and method for facilitating creation and management of contractual relationships and corresponding contracts with the concept of a storage arrangement including a plurality of sample contracts stored in machine-readable form (Fig. 3B (304); [0020], discloses a contract database that contains a plurality of contracts); and a contract facts database configured to store a data value

conforming to the portion of the text assigned to the contract attribute (Fig. 3B (304); [0020], discloses a contract database that contains a plurality of contracts).

Therefore, from the teaching of Grundfest, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information extraction system of Soderland to include a storage arrangement and a contract facts database as taught by Grundfest in order to aid in recognizing contractual patterns such as price and quantity in contracts that may identify marketing and sales opportunities in contracts for goods and services.

As per Claim 12, Soderland discloses the claimed invention as applied to Claim 11, above. However, Soderland fails to explicitly disclose identifying, from the plurality of sample contracts, annotations that describe a structural context associated with the language pattern.

Grundfest discloses a system and method for facilitating creation and management of contractual relationships and corresponding contracts with the concept of identifying, from the plurality of sample contracts, annotations that describe a structural context associated with the language pattern and corresponding to the particular structural component in each of the sample contracts ([0036] discloses using XML (extensible markup language) tagging (i.e. annotations) to extract relevant data from the full text of contracts entered into the database).

Therefore, from the teaching of Grundfest, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information extract system of Soderland to include identifying, from the plurality of sample contracts,

annotations that describe a structural context associated with the language pattern as taught by Grundfest in order to aid in recognizing contractual patterns such as price and quantity in contracts that may identify marketing and sales opportunities in contracts for goods or services.

As per Claim 13, Soderland discloses the claimed invention as applied to Claim 12, above. However, Soderland fails to explicitly disclose manually adding annotations to the plurality of contracts.

Grundfest discloses a system and method for facilitating creation and management of contractual relationships and corresponding contracts with the concept of manually adding the annotations, according to the plural structural components specified by the definition, to the plurality of sample contracts ([0036] discloses using XML tagging (i.e. annotations) to extract relevant data from the full text Of contracts entered into the database).

Therefore, from the teaching of Grundfest, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information extract system of Soderland to include manually adding the annotations to the plurality of contracts as taught Grundfest in order to aid in recognizing contractual patterns such as price and quantity in contracts that may identify marketing and sales opportunities in contracts for goods and services.

As per Claim 15, Soderland discloses generating a rule having an identifier of the particular structural component and a regular expression associated with the language pattern (Pages 238-239, discloses using WHISK rules for structured and

semi-structured text wherein the rules are based on a form of regular expression patterns that identify the context of relevant phrases and the exact delimiters (i.e. identifier) of those phrases).

As per Claim 16, Soderland discloses the regular expression being formed using a top-down induction method (Page 244, discloses using top-down rule induction method wherein it begins with an "empty" rule that covers all instances, then adds terms to the rule, which reduces the number of instances covered monotonically)

As per Claims 30, 33, and 36, Soderland discloses determining a second language pattern indicative of a second document attribute from text of the plurality of documents, wherein the second language pattern corresponds to a second one of the plural structural components specified by the definition (Page 238-239, discloses WHISK rules that are based on a form of regular expression patterns that identify the context of relevant phrases and the exact delimiters of those phrases and defining (via identifying) the context of relevant phrases (i.e. components) and the exact delimiters (i.e. structural) of the phrases (i.e. components), wherein the rule is re-applied to identify additional pattern matching language located in a document);

determining whether the second language pattern is present in the second structural component of the document being analyzed (Pages 238-239, discloses determining whether a language pattern is present in a document); and

extracting text to assign to the second document attribute from the second structural component of the document being analyzed in response to determining the

second language pattern is present (Pages 259-260, discloses extracting phrases and text styles from a document).

However, Soderland fails to explicitly disclose the method and system being applied to contracts.

Grundfest discloses a system and method for facilitating creation and management of contractual relationships and corresponding contracts with the concept of analyzing contracts for language patterns ([0010] discloses searching through contracts for trends or patterns in the contract data).

Therefore, from the teaching of Grundfest, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information extraction system of Soderland to include the method being applied to contracts as taught by Grundfest in order to aid in recognizing contractual patterns such as price and quantity in contract that may identify marketing and sales opportunities in contracts for goods and services.

3. Claims 8, 27-29, 31, 32, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soderland (1999) in view of Grundfest (US 2002/0165726) as applied to claim 1, 11, and 19 above, and further in view of Lerner et al. (6,859,909).

As per Claim 8, the Soderland and Grundfest combination discloses the claimed invention as applied to Claim 1, above. However, the combination fails to explicitly disclose a document object model.

Lerner et al. discloses a system and method for annotating web-based documents with the concept of a document object model (Col. 7, Line 47-Col. 8, Line

11, discloses a document object model which is a language-neutral specification that allows programs and scripts to access and update the content, structure and style of documents).

Therefore, from the teaching of Lerner et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Soderland and Grundfest combination to include a document object model as taught by Lerner et al. in order to aid in providing an effective means to annotate a document such as a contract.

As per Claims 27-29, 31, 32, 34, and 35, Soderland discloses receiving the definition of the plural structural components wherein the particular structural component is present in at least some of the sample documents ((Page 238, discloses defining (via identifying) the context of relevant phrases (i.e. components) and the exact delimiters (i.e. structural) of the phrases (i.e. components), wherein the structural phrases are present in Rental ads); and wherein receiving the definition of the plural structural components comprises receiving the definition of plural sections or clauses within the with a document being analyzed (Page 238-239, via defining the plural sections of the Rental ad being analyzed via the number of bedrooms and associated price).

However, Soderland fails to explicitly disclose the method and system being applied to contracts and a model of the plural structural components.

Grundfest discloses a system and method for facilitating creation and management of contractual relationships and corresponding contracts with the concept

of analyzing contracts for language patterns ([0010] discloses searching through contracts for trends or patterns in the contract data).

Therefore, from the teaching of Grundfest, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the information extraction system of Soderland to include the method being applied to contracts as taught by Grundfest in order to aid in recognizing contractual patterns such as price and quantity in contracts that may identify marketing and sale opportunities in contracts for goods and services.

Lerner et al. discloses a system and method for annotating web-based documents with the concept of a model of the plural structural components (Col. 7, Line 47-Col. 8, Line 11, discloses a document object model which is a language-neutral specification that allows programs and scripts to access and update the content, structure, and style of documents).

Therefore, from the teaching of Lerner et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Soderland and Grundfest combination to include a model of the plural structural components as taught by Lerner et al. in order to aid in providing an effective means to annotate a document such as a contract.

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soderland (1999) in view of Grundfest (US 2002/0165726) as applied to claim 11 above, and further in view of Kadel, JR. et al. (US 2002/0184401).

The Soderland and Grundfest combination discloses the claimed invention as applied to Claim 11, above. However, the combination fails to explicitly disclose a relational database and an extensible markup language database.

Kadel, JR. et al. discloses an extensible information system with the concept of a relational database and an extensible markup language database ([0085] discloses the system having a relational database and extensible markup language (XML) databases).

Therefore, from the teaching of Kadel, JR. et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Soderland and Grundfest combination to include a relational database and an extensible markup language database as taught by Kadel, JR. et al. in order to aid in identifying relationships between documents.

(10) Response to Argument

Claims 1-7, 9-13, 15, 16, 19-21, 23, 30, 33, and 36 rejected under 35 U.S.C § 103(a) as unpatentable over Soderland (1999) in view of Grundfest (US 2002/0165726).

Appellant argues that Soderland fails to disclose “receiving a definition of plural structural components within a contract being analyzed, and determining at least one language pattern from text of a plurality of sample contracts that corresponds to a particular one of the plural structural components specified by the definition.” Examiner

respectfully disagrees. Examiner asserts that Soderland discloses receiving a definition of plural structural components within a contract being analyzed via defining (via identifying) the context of relevant phrases (i.e. components) and the exact delimiters (i.e. structural) of the phrases (i.e. components) (Page 238); and determining at least one language pattern from text of a plurality of sample contracts that corresponds to a particular one of the plural structural components specified by the definition via WHISK rules that determine regular expression patterns that identify the context of relevant phrases and the exact delimiters of those phrases (Page 238). The Soderland reference discloses the claimed method of determining language patterns being applied to various documents such as news stories, on-line postings about rentals, seminars, or jobs (Page 269). Examiner asserts that a contract is defined as "a **document** describing the terms of a contract" (by contract. (2009). In *Merriam-Webster Online Dictionary*. Retrieved November 2, 2009, from <http://www.merriam-webster.com/dictionary/contract>). Examiner asserts that the fact that the claimed invention of the Appellant is directed to a contract which is defined to be simply a document fails to make is patentably distinct from the Soderland reference which is applied to a plurality of documents. Examiner asserts that the Grundfest reference is applied to disclose the concept of the method of identifying language patterns being applied to contracts ([0010] discloses searching through contracts for trends or patterns in the contract data). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed

invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both the Soderland and Grundfest reference teach the concept of identifying language patterns in documents such as a contract.

Claims 8, 27-29, 31, 32, 34, and 35 rejected under 35 U.S.C. § 103(a) as unpatentable over Soderland in view of Grundfest and in further view of Lerner (6,859,909).

As per Claim 28, Appellant argues that the Lerner reference fails to disclose a document object model being used to define structural components within a contract. Examiner respectfully disagrees. Examiner asserts that the Lerner reference discloses a document object model being used to define structural components of a document (Col. 7, Line 47-Col. 8, Line 11, discloses a document object model which is a language-neutral specification being used to define (i.e. update) the structure and style of documents). Examiner asserts that a contract is defined as “a **document** describing the terms of a contract” (by contract. (2009). In *Merriam-Webster Online Dictionary*. Retrieved November 2, 2009, from <http://www.merriam-webster.com/dictionary/contract>). Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the document

object model used for web-based documents to be applied to contract since they are both considered documents.

As per Claims 29, 32, and 35, Appellant argues that Soderland fails to disclose "receiving the definition of plural section or clauses within the contract being analyzed." Examiner respectfully disagrees. Examiner asserts that a contract is simply a document via being defined as "a **document** describing the terms of a contract" (by contract. (2009). In *Merriam-Webster Online Dictionary*. Retrieved November 2, 2009, from <http://www.merriam-webster.com/dictionary/contract>). Examiner asserts the information contained in a contract (i.e. sections or clauses) are simply considered data and hold little patentable weight. Examiner asserts Soderland discloses receiving the definition of the plural structural components (Page 238, via defining (i.e. identifying) the context of relevant phrases (i.e. components) and the exact delimiters (i.e. structural) of the phrases (i.e. components) within a document. Examiner asserts that the fact that Appellant's claimed invention is directed to being applied to contracts fails to distinctly overcome the rejections applied via the Soderland, Grundfest, and Lerner reference as argued. Examiner asserts that a contract is simply a document. The Soderland, Grundfest, and Lerner reference are all directed to the use of documents.

As per Claims 8, 27, 31, 34, Appellant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Claim 17 rejected under 35 U.S.C. § 103(a) as unpatentable over Soderland in view of Grundfest and in further view of Kadel, Jr. (US 2002/0184401).

As per Claim 17, Appellant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/F. L./

Examiner, Art Unit 3689

Conferees:

/Janice A. Mooneyham/

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Vincent Millin/vm/

Appeals Conference Specialist